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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,184	11/25/2003	Laurence Burlacot	033818-025	4214

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EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/720,184	Applicant(s) BURLACOT, LAURENCE	
	Examiner Justin R. Fischer	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>112503</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura (US 4,953,605). As best depicted in Figure 7, Kawamura teaches a pneumatic tire construction having a supplementary reinforcement structure comprising a first and second group, wherein said first group is defined by at least two inside reinforcing layers or strips 7 and second group is defined by at least two outside reinforcing layers or strips 6. It is evident from Figure 7 that (a) strips within each of the above noted groups have a substantial degree of overlap as required by the claimed invention and (b) strips have a width that is substantially the same as the width of the group and thus, each strip has a width that satisfies the claimed invention. In regards to the reinforcing elements, Kawamura teaches that the reinforcing elements in the strips or layers of the first group are inclined between 10 to 60 degrees with respect to the circumferential direction (Column 7, Lines 25-35 / based on radial construction in carcass). The reference, however, is silent as to the inclination angle of the reinforcing elements in the second group. One of ordinary skill in the art at the time of the invention would have found it obvious to include the reinforcing elements of the second group at an angle between 30 and 90 degrees (with respect to the circumferential direction of the

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tire) since such an angle is consistent with common bead reinforcing layers. This is particularly evident in view of the inclination angles disclosed by Kawamura with respect to the additional bead reinforcing layers (4 and 7) (Column 5, Lines 40-50 and Column 7, Lines 20-35). Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have readily appreciated the broad range (for the inclination angle) of the claimed invention.

It is initially noted that while the tire structure of the claimed invention is significantly different than that of Kawamura, the claims as currently drafted fail to exclude the individual reinforcing layers from being viewed as "strips" and the respective combination of reinforcing layers from being viewed as "groups". It is suggested that applicant amend the claims to more specifically define the strip-like arrangement of the claimed invention.

Regarding claim 2, the hard bead filler 11 is being viewed as a decoupling rubber layer, it being evident that said layer has a thickness that is greater than the average diameter of the reinforcing elements in the groups.

As to claims 8 and 9, Kawamura fails to expressly relate the inclination angles of the respective strips and/or groups. However, it is well known to cross the reinforcing elements of adjacent layers/strips to provide increased reinforcement in the bead region. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to adopt the claimed relationship within and between the groups.

With respect to claim 10, the strips of Kawamura are formed with organic fiber cords (Column 7, Lines 35-40). Additionally, the claims are directed to a tire structure and the language "by means of a back and forth positioning process between a later edge..." represents a method limitation that does not further define the structure of the tire.

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura as applied in claim 1 above and further in view of Adachi (US 5,379,819), Agari (US 4,934,431), and Motomura (US 4,215,737). Regarding the tensile modulus, Kawamura teaches that the decoupling rubber layer 11 is formed of a hard rubber composition having a tensile modulus between 60 and 150 kgf/cm² (Column 7, Lines 60-67). While the reference is silent as to the tensile modulus of the coating rubber of the strips, it is extremely well known that the tensile modulus of coating rubbers is generally lower than the tensile modulus of hard bead fillers, as shown for example by Adachi (Column 4, Lines 50-55), Agari (Column 3, Lines 25-35), and Motomura (Column 6, Lines 1-6). Thus, the claimed relationship between the respective tensile moduli is seen to be consistent with the common structure of bead reinforcing layers. Absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Kawamura with the claimed quantitative relationship.

Allowable Subject Matter

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4. Claims 5-7 and 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Justin Fischer

July 25, 2005